



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/540,883	06/27/2005	Hiroshi Otsuka	273474US3PCT	1791
22850	7590	09/11/2007	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			KARLS, SHAY LYNN	
			ART UNIT	PAPER NUMBER
			1744	
			NOTIFICATION DATE	DELIVERY MODE
			09/11/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
oblonpat@oblon.com
jgardner@oblon.com

Office Action Summary	Application No. 10/540,883	Applicant(s) OTSUKA ET AL.	
	Examiner Shay L. Karls	Art Unit 1744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>6/28/07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al. (USPN 6047435).

Suzuki teaches a cleaning sheet (1) adapted to be attached to the head (12) of a cleaning tool. There is a first wiping sheet (bottom layer in figure 1) disposed on one side of the cleaning sheet. There is a wiping portion disposed on the first wiping sheet disposed on the bottom of the head. The cleaning sheet has a projecting part (3) including part of the wiping portion which is reinforced with another material (T1, figure 8) superimposed on the first wiping sheet in an area corresponding to projecting part. The projecting part is adapted to stick out of the edge of the head by a projecting length M when attached to the head (figure 2, M is equal to the distance from seam 2 to outermost portion of the projection 3). Figure 3 shows the cleaning sheet being

Art Unit: 1744

attached to the head with the projecting part extending beyond the head. The cleaning sheet comprises a base sheet (figure 1, top layer) and a wiping sheet (figure 1, lower layer) disposed on a surface of the base sheet. The projecting parts are fringe and are extending from the wiping sheet.

Suzuki teaches all the essential elements of the claimed invention however fails to teach that the projecting part has a repulsive force of 0.1 to 100 N/cm (claim 1) or 0.2 to 50 N/cm (claim 3) or 0.3 to 10 N/cm (claim 4) when formed by a length $M/3$ in the direction opposite the projecting direction thereof. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Suzuki so that the projecting parts have a repulsive force within the claimed range since the wiping ability depends on the variation of repulsive forces. Therefore, one of skill in the art would by routine experimentation find the optimum repulsive force for the projecting parts in order to optimize wiping efficiency. Additionally, given that the structure recited in Suzuki is substantially identical to that of the claims, the claimed properties or functions are presumed to be inherent, and the applicant has the burden of showing that they are not. MPEP 2112.01.

Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Policicchio (USPN 6996871).

Policicchio teaches a cleaning sheet (400) adapted to be attached to the head (22) of a cleaning tool. There is a first wiping sheet (401) disposed on one side of the cleaning sheet. There is a wiping portion disposed on the first wiping sheet disposed on the bottom of the head. The cleaning sheet has a projecting part (411, 413) including part of the wiping portion which is reinforced with another material (adhesive, col. 16, lines 23-28) superimposed on the first wiping

Art Unit: 1744

sheet in an area corresponding to projecting part. The projecting part (411, 413) is adapted to stick out of the edge of the head by a projecting length M when attached to the head (figure 12, M is equal to the length of the elements 411 and 413).

With regards to claim 2, the cleaning sheet comprises a base sheet (405, 407, 409) and the first wiping sheet (401) is disposed on the surface of the base sheet and including the projecting part as a first fringe of the first wiping sheet.

With regards to claim 5, there are fixing portions extending from the forward and backward edges of the projecting parts. Figure 2 shows fixing portions extending from the cleaning sheet as the means for attaching to the mop head (col. 9. lines 7-53). Even though the fixing portions are not shown on every figure of the cleaning sheet, it is clear that the fixing portions are capable to be used with all the various cleaning sheet embodiments to attach the sheet to the mop head.

With regards to claim 7, there is a second wiping sheet (403) disposed on a side of the base sheet opposite the first wiping sheet.

With regards to claim 8, the base sheet comprises a different material than the material comprising the first and second wiping sheets.

With regards to claim 9, the second wiping sheet comprises a second fringe (figure 12, portion of 403 which is connected to 401; extends beyond the seam which connects 403 to 401).

With regards to claim 10, the first and second fringes are sections of the first and second wiping sheets.

Politicchio teaches all the essential elements of the claimed invention however fails to teach that the projecting part has a repulsive force of 0.1 to 100 N/cm (claim 1) or 0.2 to 50 N/cm

Art Unit: 1744

(claim 3) or 0.3 to 10 N/cm (claim 4) when formed by a length $M/3$ in the direction opposite the projecting direction thereof. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Policicchio so that the projecting parts have a repulsive force within the claimed range since the wiping ability depends on the variation of repulsive forces. Therefore, one of skill in the art would by routine experimentation find the optimum repulsive force for the projecting parts in order to optimize wiping efficiency. Additionally, given that the structure recited in Suzuki is substantially identical to that of the claims, the claimed properties or functions are presumed to be inherent, and the applicant has the burden of showing that they are not. MPEP 2112.01.

Regarding claim 6, Policicchio fails to teach that the fixing portions are connected to the forward and backward edges by sections thinner than the fixing portions are measured in a direction perpendicular to the projecting direction. While the fixing portion as shown in figure 2 have a constant thickness, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the shape of the fixing portions so that the fixing portions have a narrowed middle portion since changing shape is a modification that has been considered to be within the level of ordinary skill in the art. MPEP 2144. Additionally, one of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with either the shape as taught by Policicchio or the claimed thinner middle portion because both fixing portions allow the cleaning sheet to be attached to the mop head with either the first or second wiping sheets being exposed equally well. Therefore, it would have been obvious to one of ordinary skill in the art to modify Policicchio to obtain the invention as specified in claim 6.

Response to Arguments

Applicant's arguments, filed 6/20/07, with respect to JP '381 have been fully considered and are persuasive. The rejection of JP'381 has been withdrawn.

Applicant's arguments filed 6/20/07, with respect to Suzuki and Policicchio have been fully considered but they are not persuasive.

The applicant argues that Suzuki and Policicchio fail to teach a repulsive force as claimed. In response, while the references fail to explicitly teach a repulsive force, it would have been obvious that the references inherently have the claimed repulsive force since the references have substantially identical structure to that of the claims. Once it is determined that the prior art and the present invention are substantially identical, the applicant has the burden of showing that they are not. MPEP 2112.01. The applicant must distinguish over the prior art of record structurally or submit evidence that the references do not have the properties as claimed.

Regarding the newly added dependent claims, the applicant argues that Suzuki and Policicchio fail to teach a second wiping sheet disposed on a side of the base sheet opposite the first wiping sheet. In response, the applicant is correct in stating that Suzuki fails to teach a second wiping sheet, however it is clear that Policicchio teaches a second wiping sheet attached to the base on a side opposite the first wiping sheet. While the second wiping sheet is not described as a "scrubbing layer" it could clearly be considered a cleaning layer and depending on the amount of force used with the second wiping layer, it could be considered a scrubbing layer. Additionally, the applicant does not provide any limitations regarding the structure of the second wiping sheet and therefore Policicchio reads on the claimed second wiping layer.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shay L. Karls whose telephone number is 571-272-1268. The examiner can normally be reached on 7:00-4:30 M-Th, alternating F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gladys Corcoran can be reached on 571-272-1214. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1744

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Shay L Karls
Patent Examiner
Art Unit 1744